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The COVID-19 pandemic in developing countries: A new opportunity to improve the monitoring of patients with diabetes mellitus



The narrative review published by Macherera et al. [1] has been of great interest to us, as it highlights the importance of establishing a personalized educational plan in patients with diabetes during the COVID-19 pandemic, based on preventive measures, medications, changes in lifestyle, self-monitoring of glucose, foot

care and prevention of complications. This is something that we are also currently doing in Peru, which to date is the country with the highest mortality rate from COVID-19 in the world, taking into account the number of inhabitants [2].

The COVID-19 pandemic has taught us many lessons, including

Table 1

Monitoring sheet for patients with diabetes mellitus. Source: Division of Endocrinology. Hospital Nacional Guillermo Almenara Irigoyen. Lima, Peru.

Date Name Type of diabetes mellitus Complications of diabetes Comorbidities	Age Time since diagnosis of diabetes mellitus															
	INITIAL				FIRST WEEK				SECOND WEEK		THIRD WEEK		FOURTH WEEK			
Weight Height Body mass index Waist circumference																
MY TREATMENT Oral antidiabetic Insulin dose Other treatments																
GLUCOSE MONITORING Fasting glucose Postprandial glucose (2 hours after meals)	INITIAL	M	W	F	M	W	F	M	W	F	M	W	F	M		
PHYSICAL ACTIVITY Circle the days that you complete at least 15 min of continuous physical activity, write down the total number of minutes of physical activity at the end of each week	FIRST WEEK	M	T	W	T	F	S	S	SECOND WEEK	M	T	W	T	F	S	S
FOOD CONSUMED DURING THE DAY Breakfast Snacks Lunch Snacks Dinner Write down the main concerns that you have about your diet					FIRST WEEK				SECOND WEEK		THIRD WEEK		FOURTH WEEK			
REST What time do you wake up?									What time do you go to bed?		Yes		No			
OTHERS MY HBA1C	INITIAL								ESPECIFIC GOAL <8% _____		<7% _____		<6.5% _____			

(continued on next page)

Table 1 (continued)

MY LIPID PROFILE	INITIAL	ESPECIFIC GOAL
		LDL cholesterol (mg/dl): _____
		HDL cholesterol (mg/dl): _____
		Triglycerides (mg/dl): _____

that diabetic patients have a higher risk of mortality and of developing severe course of disease [3]. In this context, maintaining adequate metabolic control of diabetic patients is of extreme importance [4]. However, circumstances such as confinement, closure of outpatient clinics, and the fear of contracting SARS-CoV-2 result in less access to healthcare services.

Under these circumstances, it is essential for us to adapt our medical practice and find ways that allow us to provide the necessary care to our patients. A very interesting alternative is telemedicine. In 2018 and 2019, two meta-analyses of controlled clinical trials were carried out with the aim of comparing the results of telemedicine and the usual care for diabetic patients. Both studies found a greater reduction in glycated hemoglobin (HbA1c) in the telemedicine group, especially in older patients with type 2 diabetes with a HbA1c > 9% and when performing more frequent interventions (at least 6 times a year) [5,6].

In our clinical practice, in the Endocrinology department of a Peruvian national hospital, we have created a monitoring sheet that is delivered to our patients upon discharge (Table 1), allowing patient follow-up with good results so far. The use of this tool has gained acceptance in our patients, particularly during this time, greatly facilitating their interaction with medical personnel and giving them a sense of security and empathy. With a single picture of the file, healthcare professionals can provide counseling and treatment adjustments. Additionally, patients can record their progress and goals, thus increasing their commitment and adherence.

In conclusion, we highlight that although Peru is one of the countries that is suffering the most from the consequences of the COVID-19 pandemic, this may be an opportunity to discover tools to improve the control of patients with diabetes and contribute to overcoming barriers to the access of health services.

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I, Marcio José Concepción Zavaleta, registered doctor in Peru, belonging to the Endocrinology department of Guillermo Almenara National Hospital, declare that all authors don't have conflict of interest in this publication.

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María Alejandra Quispe Flores, Marcio José Concepción Zavaleta, Esteban Alberto Plasencia Dueñas
Division of Endocrinology, Hospital Nacional Guillermo Almenara Irigoyen, Lima, Peru

Mikaela Kcomt Lam*
Universidad Privada Antenor Orrego, Facultad de Medicina Humana; COVID-19 Unit, Hospital de Alta Complejidad Virgen de la Puerta, Trujillo, Peru Trujillo, Peru

* Corresponding author. School of Medicine, Universidad Privada Antenor Orrego. Av. America Sur 3145, Urb. Monserrate. 13009 - Trujillo, Peru. Tel.: +51 948 173 917.
E-mail address: mikaelakcomtlam@gmail.com (M. Kcomt Lam).

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